

Table of Contents

SECTION 1 INTRODUCTION.....	1
SECTION 2 HISTORICAL BACKGROUND.....	5
SECTION 3 LAND AND WATER RESOURCE INVENTORY.....	7
PRECIPITATION.....	7
GENERAL TOPOGRAPHIC, GEOLOGIC, & GROUNDWATER DATA	8
GROUNDWATER RESOURCE DATA.....	10
SOIL DATA.....	11
NATURAL COMMUNITY	11
FISHERIES.....	13
WILDLIFE.....	17
UNIQUE FEATURES AND SCENIC AREAS.....	19
<i>Sensitive, Rare, and Endangered Species</i>	19
<i>Scenic Areas.....</i>	20
SURFACE WATER RESOURCES.....	21
<i>Mississippi River</i>	21
<i>Loring Park Pond.....</i>	23
<i>Mallard Marsh.....</i>	24
<i>Bridal Veil Creek and Kasota Pond.....</i>	24
<i>Public Waters and Wetlands.....</i>	25
<i>Dams</i>	25
<i>Ditches.....</i>	27
<i>National Wetlands Inventory.....</i>	27
<i>Inventorying Wetlands of the MMRW.....</i>	27
<i>Methodology to Assess the Functions of Wetlands.....</i>	28
<i>Evaluating Areas for Wetland Restoration</i>	30
<i>Metropolitan Mosquito Control District Wetland Map.....</i>	30
<i>Stormwater System.....</i>	31
<i>Hydrological Characteristics of Public Waters.....</i>	32
<i>Flood Levels and Peak Discharges.....</i>	32
<i>Flood-Prone Areas.....</i>	32
<i>Surface Water Quality Data.....</i>	33
<i>Approved Shoreland Ordinances.....</i>	33
<i>Surface Water Appropriations Permits.....</i>	33
LAND USE AND PUBLIC UTILITY SERVICES.....	33
INTERCOMMUNITY FLOWS ANALYSIS.....	33
WATER-BASED RECREATION AREAS.....	36
MINNESOTA PERMANENT LIST OF PRIORITIES (STATE SUPERFUND SITES)	36
<i>Poluted Sites</i>	36
SECTION 4 ASSESSMENT OF PROBLEMS.....	40
SURFACE WATER QUALITY	40
<i>Stormwater Runoff.....</i>	40
<i>Rooftop Connections to Sanitary Sewers</i>	41
SPECIFIC WATER BODIES.....	42
<i>Mississippi River</i>	43
<i>Loring Park Pond.....</i>	43
<i>Bridal Veil Creek and Kasota Pond.....</i>	43
WATER QUANTITY	44
<i>Flooding.....</i>	44
<i>Combined Sewer Overflows.....</i>	44

RECREATION	45
<i>Lack of Public Access to the Mississippi.....</i>	45
<i>Violation of State and Federal Surface Water Quality Standards.....</i>	45
FISH AND WILDLIFE RESOURCES.....	45
SOIL EROSION AND SEDIMENTATION	46
<i>Erosion of Steep Riverbank Slopes.....</i>	46
<i>Industrial Waste Piles Without Runoff Controls.....</i>	46
LAND USE PRACTICES.....	47
<i>Negative Impact of Transportation Route Expansions.....</i>	47
<i>Impact of Industrial Activities on the Mississippi River.....</i>	47
<i>High Percentage of Impervious Surfaces.....</i>	47
OTHER POTENTIAL PROBLEMS	48
SECTION 5 MISSION AND GOALS.....	49
MISSION.....	49
GOALS.....	49
SURFACE WATER QUANTITY	50
<i>Goal 1: Prevent flooding.....</i>	50
<i>Goal 2: Mitigate the effects of drought.....</i>	50
SURFACE WATER QUALITY.....	51
<i>Goal 3: Protect and enhance the surface water quality in the MMRW.....</i>	51
<i>Goal 4: Reduce non-point sources of pollution</i>	51
<i>Goal 5: Work with other organizations to improve surface water quality across watershed boundaries</i>	52
RECREATION	53
<i>Goal 6: Provide opportunities for public outdoor recreation in a way that preserves and enhances the environment.....</i>	53
<i>Goal 7: Create a continuous river corridor.....</i>	53
PUBLIC PARTICIPATION	54
<i>Goal 8: Enhance public participation in MMRWMO activities.....</i>	54
<i>Goal 9: Educate MMRW communities about environmental impacts to the Mississippi River, especially non-point sources of pollution</i>	54
<i>Goal 10: Educate MMRW communities about redevelopment plans impacting the Mississippi River.....</i>	55
GROUNDWATER.....	55
<i>Goal 11: Protect and preserve groundwater quality and quantity.....</i>	55
WETLANDS.....	55
<i>Goal 12: Protect and restore wetland resources.....</i>	55
EROSION AND SEDIMENT CONTROL	56
<i>Goal 13: Control loss of soil due to erosion</i>	56
LAND USE	57
<i>Goal 14: Preserve, minimize impact to, and restore natural habitat; especially shorelines and habitat corridors</i>	57
HISTORICAL AND CULTURAL RESOURCES	58
<i>Goal 15: Preserve and interpret cultural resources that relate the history of the Mississippi River and its watershed</i>	58
SECTION 6 IMPLEMENTATION PROGRAM.....	59
POLICIES AND STANDARDS.....	60
<i>Wetlands Administration.....</i>	60
<i>Local Water Management Plan.....</i>	60
<i>Erosion and Sediment Control.....</i>	61
<i>Shoreline and Floodplain</i>	61
<i>Land Use</i>	61
<i>Stormwater and Drainage Design Performance.....</i>	61
PROGRAMS.....	63
<i>Point and Non-point Source Pollution</i>	63
<i>Snow and Ice Management.....</i>	64

<i>Spill and Cleanup Response</i>	64
<i>Annual Publication</i>	65
<i>Monitoring</i>	65
<i>Groundwater</i>	66
<i>Land Banking for Habitat, Historical and Cultural Resources, & Recreational Opportunities</i>	67
<i>Education Opportunities</i>	68
<i>Rain Leader Disconnect</i>	69
PROJECTS	70
<i>Aqua Landings</i>	70
<i>Edgewater Park</i>	71
<i>Eliminate Combined Sewer Overflows</i>	71
<i>Grain Belt Shoreline Improvements</i>	71
<i>Hawthorne Area Community Rain Garden</i>	72
<i>Mississippi River Gorge Habitat Restoration</i>	72
<i>Near Northside/Old Bassett Creek Stormwater Wetlands</i>	73
<i>North Mississippi River Regional Park</i>	73
<i>Silver Lake Wet Stormwater Detention Basin at 33rd and Emerson Avenue North</i>	73
<i>Southeast Minneapolis Industrial Area (SEMI) Storm Drains and Stormwater Wetlands</i>	74
<i>St. Anthony Flood Control Projects</i>	74
<i>Upper River Master Plan</i>	74
<i>West River Parkway Improvements</i>	74
<i>White Water Park</i>	75
CRITERIA FOR EVALUATING PROJECTS FOR IMPLEMENTATION	76
<i>Overall Evaluation Criteria</i>	76
<i>Specific Issue Criteria</i>	76
SECTION 7 IMPACTS ON OTHER UNITS OF GOVERNMENT	78
WATER QUANTITY	78
WATER QUALITY	78
RECREATION	79
FISH, WILDLIFE & ECOSYSTEMS	79
HISTORIC AND CULTURAL RESOURCES	79
GROUNDWATER	79
EROSION	80
IMPACT ON LOCAL GOVERNMENT	80
<i>Existing Local Controls</i>	80
<i>Financial Impact on Local Government</i>	80
<i>Adoption by Reference</i>	80
SECTION 8 AMENDMENTS TO THE PLAN	81
GENERAL AMENDMENT PROCEDURE	81
MINOR AMENDMENTS	82
SECTION 9 EFFECTIVE DATE	84
SECTION 10 BUDGET	85
SECTION 11 GLOSSARY	87
SECTION 12 CITATIONS AND REFERENCE MATERIAL	91
CHARTS	
MAPS	